

## **ABSTRACT**

A method of automatic light emitting device calibration includes providing an optical device having a light emitting device and a photo monitor; controlling power of the light emitting device by changing values of a drive signal to the light emitting device; detecting light emitted by the light emitting device and generating a monitor signal having a value corresponding to the light emitted by the light emitting device utilizing the photo monitor; and determining a preliminary power relationship relating values of the drive signal to powers of the light emitting device according to received monitor signal values for a plurality of drive signal values and a predetermined conversion rule for converting the received monitor signal values to corresponding powers of the light emitting device. A final power relationship is generated by performing a power relationship correction operation to ensure test data is written to an optical medium at a particular power.